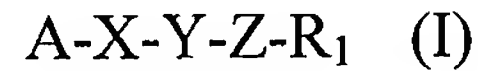


IN THE CLAIMS

1. (Original) A method for sequestering and/or removing LDL comprising contacting a medium comprising LDL with a sequestering and/or removing effective amount of a compound of chemical formula (I)



wherein A comprises a carboxy group or is absent;

X comprises a polyol, wherein one or more polyol hydroxyls are substituted by acyl;

Y comprises -C(=O)-, -C(=S)-, or is absent;

Z comprises O, S or NH; and

R₁ comprises a polyether.

2. (Previously Presented) The method of claim 240, wherein in the polyol acyl comprises a fatty acid(s).

3-7 (Canceled)

8. (Previously Presented) The method of claim 240, wherein the polyol comprises a (C₂-C₂₀) alkyl polyol.

9. (Previously Presented) The method of claim 240 wherein the polyol comprises about 2 to about 20 hydroxyl groups.

10. (Previously Presented) The method of claim 240 wherein the polyol is substituted with one or more acyl.

11. (Previously Presented) The method of claim 240 wherein the polyol comprises a mono- or dicarboxylic (C₂-C₂₀) alkyl polyol substituted with about 1 to about 10 hydroxyl(s).

12. (Previously Presented) The method of claim 240 wherein the polyol comprises one or more of mucic acid, malic acid, citromalic acid, alkylmalic acid, hydroxy glutaric acid derivatives, alkyl glutaric acids, tartaric acid, or citric acid.

13. (Previously Presented) The method of claim 240 wherein the polyol comprises one or more of 2,2-(bis(hydroxymethyl)propionic acid, tricine, or a saccharide.

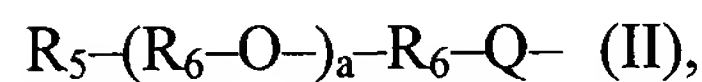
14. (Previously Presented) The method claim 240 wherein the polyether comprises about 2 to about 150 alkylene oxide units.

15. (Previously Presented) The method of claim 240 wherein each alkylene oxide unit comprises straight or branched (C₂-C₄) alkylene oxide.

16. (Previously Presented) The method of claim 240 wherein the polyether comprises an alkoxy-terminal group.

17. (Previously Presented) The method of claim 240 wherein the polyether is linked to the polyol through a linker comprising ester, thioester, or amide.

18. (Previously Presented) The method of claim 240 wherein the polyether comprises the chemic formula



wherein

R₅ comprises straight or branched (C₁-C₂₀) alkyl, -OH, -OR₇, -NH₂, -NHR₇, -NHR₇R₈, -CO₂H, -SO₃H (sulfo), -CH₂-OH, -CH₂-OR₇, -CH₂-O-CH₂-R₇, -CH₂-NH₂, -CH₂-NHR₇, -CH₂-NR₇R₈, -CH₂CO₂H, -CH₂SO₃H, or -O-C(=O)-CH₂-CH₂-C(=O)-O-;

R₆ comprises straight or branched divalent (C₂-C₁₀) alkylene;

each R₇ and R₈ comprises, independently, straight or branched (C₁-C₆) alkylene;

Q comprises -O-, -S-, or -NR₇; and

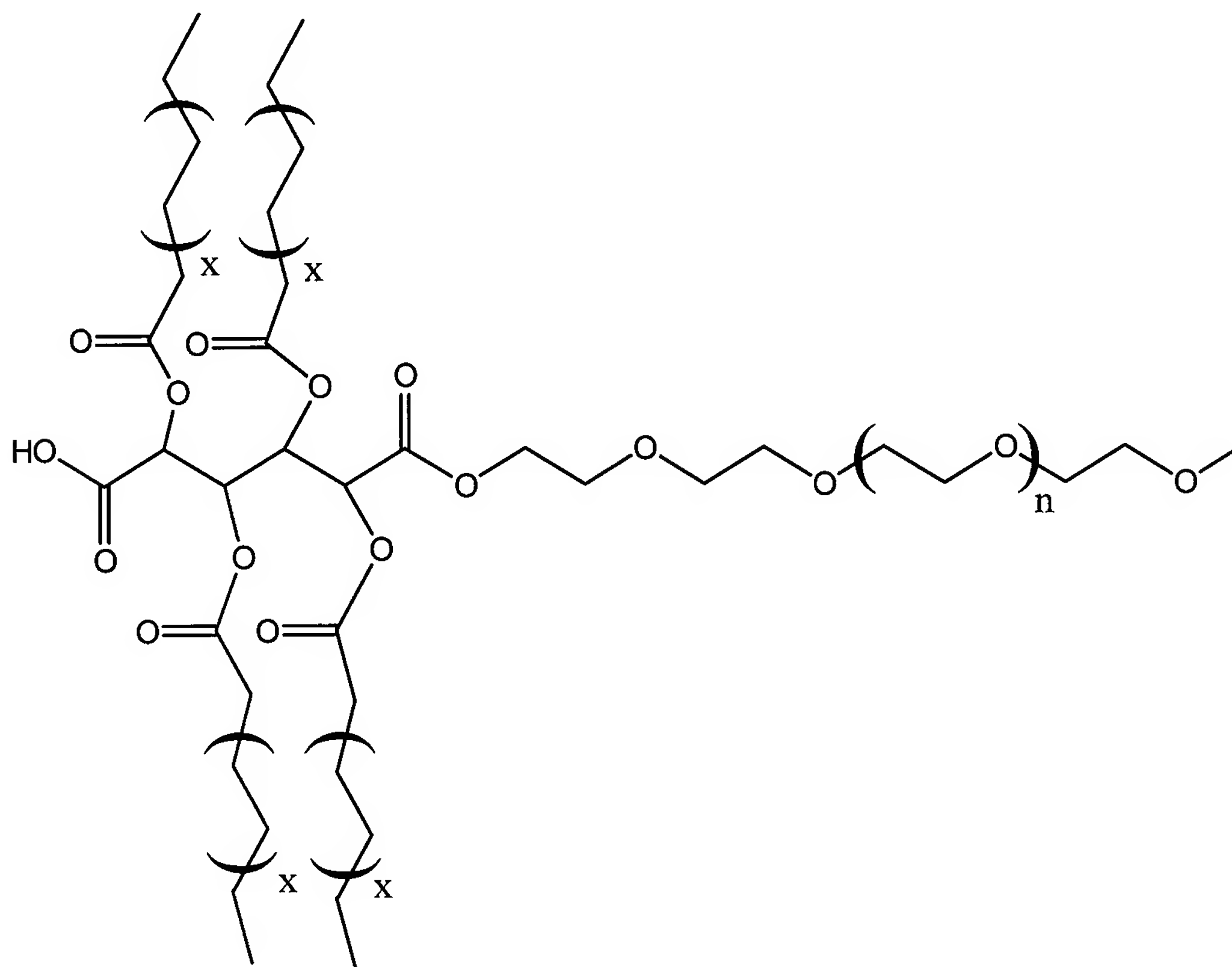
a comprises an integer of about 2 to about 110, inclusive.

19. (Previously Presented) The method of claim 240 wherein the polyether comprises a polyethylene glycol comprising a methoxy terminal group.

20. (Previously Presented) The method of claim 2 wherein the fatty acid(s) comprise(s) (C₂-C₂₄) fatty acid(s).

21. (Previously Presented) The method of claim 2 wherein the fatty acid(s) comprise(s) one or more of caprylic, capric, lauric, myristic, myristoleic, palmitic, palmitoleic, stearic, oleic, linoleic, arachidic, behenic, or erucic acid.

22. (Previously Presented) The method of claim 240 wherein the compound of formula (I) has the chemical structure



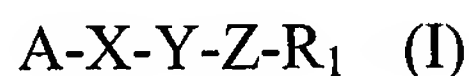
(III)

wherein each x comprises, independently, 1, 2, 3, or 4; and n is about 36.

23. (Previously Presented) The method of claim 240 wherein the compound of chemical formula (I) is provided in the form of a nanoparticulate formulation.

24-87. (Canceled)

88. (Withdrawn) A method for treating a disease associated with pathological cells in the body of an animal, comprising administering to the animal a therapeutic agent that is associated with an amphiphilic macromolecule that targets the agent to the cells, wherein the amphiphilic macromolecule is a compound of chemical formula (I)



wherein A comprises a carboxy group or is absent;

X comprises a polyol, wherein one or more polyol hydroxyls are substituted by acyl;

Y comprises -C(=O)-, -C(=S)-, or is absent;

Z comprises O, S or NH; and

R₁ comprises a polyether.

89-239. (Canceled)

240. (Previously Presented) A method for inhibiting atherosclerosis or atherosclerotic development in an animal, comprising administering an effective amount of a compound of formula (I) as described in claim 1 to the animal.

241. (Previously Presented) The method of claim 240 wherein: the polyol comprises mucic acid wherein the hydroxyls of the mucic acid are substituted by one or more fatty acids selected from caprylic, capric, lauric, myristic, myristoleic, palmitic, palmitoleic, stearic, oleic, linoleic, arachidic, behenic, and erucic acid; and the polyether comprises about 2 to about 150 alkylene oxide units and an alkoxy-terminal group.